POG050

WOOD PELLET STOVE WITH BACK BOILER

Experimental capabilities

- **Study of a pellet stove**
- **Commissioning, connection and operation**
- **Study of the power produced**
- **Pellet loading operations**
- **Maintenance and cleaning of stove**
- **Production of heating water**

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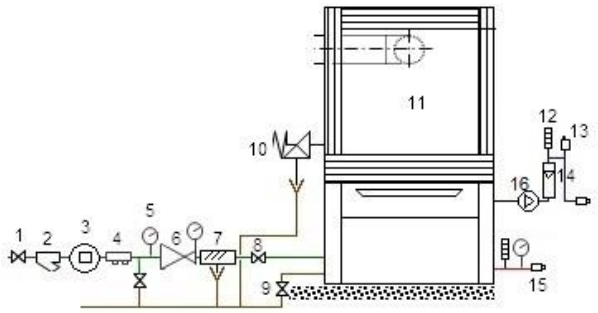
Operating principle

The bench allows the study of hydraulic pellet stove. It consists of a pellet stove with hydraulic connection for central heating and all related components necessary for the production (filling, circulation, expansion tank, valve ...). The bench is designed to be connected to a storage tank, a dissipation system or an internal network of the training center. Students can identify the system components; prepare it (filling, wood loading ...) then commissioning (ignition ...). During operation they can record the operating parameters (temperature, flow rate ...) and will also check the combustion (requires a combustion analyzer available as an option).
After a period of operation, they can proceed with the system shutdown and do its maintenance.

The robust design of this device makes it suitable for use in schools.
The equipment is set up on an Anodized aluminium frame on casters wheels. This gives it great strength and a flexibility of integration into your premises.The manufacture of this equipment complies with the European standard for machinery manufacturing.This equipment can be used alone or with other compatible equipment from our range (see last section of this document).

Illustrations



The bench is installed on an aluminum shaped frame equipped with four castors with brake.
It has an electrical box with main power switch, 30mA differential circuit breaker and emergency stop button.

Technical details

1. Water supply valve
2. Strainer
3. Volumetric water meter
4. Check valve anti-pollution
5. Pressure gauge network
6. Pressure reducer
7. Backflow preventer
8. Filling valve
9. Drain valve
10. Safety valve heating 3 bar
11. Automatic pellet stove
    Nominal power (nominal / reduced): 16/8.2KW
    Water dissipated power (nominal / reduced): 13.5/6.9KW
    Air dissipated power (nominal / reduced): 2.5/1.2KW
    Efficiency (nominal / reduced): 89.6/94.8%
    Hopper capacity: 30kgs
    Autonomy: 17hrs
12. Dial thermometer 0/120°C (at input and output of the stove)
13. Automatic air vent valve
14. Float flowmeter 100-1000L/h
15. Quick coupling for the connection toward the dissipations
16. Water pump
17. Expansion tank

Services required

- Electrical supply : 230 Vac – 50 Hz – 6 A
- Electrical network : 1 phase(s) + Neutral + Earth.
- Water supply : filling
- Water drain : on the floor
- Smoke exhaust: diameter 80 mm
- Fuel supply : wood pellet
- Dimensions: (LxWxH mm): 1300 x 800 x 1500
- weight (Kg): 250

Note : if the equipment installation is operated by our staff, all supplies and exhaust connections required must stand at less than 2m from the machine

Documentation

- User's manual
- Technical documentation of the components
- Lab exercises
- Wiring diagram
- Hydraulic diagram
- Certificate of conformity CE

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Options

Combustion analyzer	Ref : KIG100

Recommended equipment

Unit heater dissipation bench	Ref : AER033
Bench of radiators	Ref : TCF120
Heated floor	Ref : TCF121
Bench of hydraulic balancing (radiators)	Ref : TCF122
Bench of fan coil	Ref : TCF124
Thermal store 200L	Ref : BAL200

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